

EXHIBIT 156



The Evans Consulting Group, Inc.

*Innovative Financial Aid Solutions
for Colleges and Universities*

Phone: 888-454-3101

Fax: 443-638-0238

May 27, 2011

Ms. Elizabeth M. Hicks
Executive Director, Student Financial Services
Massachusetts Institute of Technology
77 Massachusetts Avenue, Bldg. 11-320
Cambridge, MA 02139-4307

Dear Ms. Hicks:

The Evans Consulting Group, Inc. (ECG) was engaged by the Massachusetts Institute of Technology (MIT) to provide an assessment of the PowerFAIDS system as it used currently being used to support MIT's financial aid operations. We previously submitted a draft report summarizing our assessment, and the Institute provided comments and feedback. Subsequently, we updated the report to reflect corrections and clarifications based on the Institute's comments, and we are now submitting the final version of the report with corresponding appendices. For your convenience, we are providing a separate copy (of the report only) that shows the changes highlighted in yellow.

This letter and the enclosed report relate only to the tasks referenced above and do not extend to financial statements of the institute or any of its Title IV student financial assistance programs. Additionally, we have not conducted, pursuant to this engagement, an audit in accordance with generally accepted auditing standards. Accordingly, we do not express an opinion regarding the institute's financial statements since we cannot issue opinions in this area. Had we performed additional tasks or provided additional services, other matters might have come to our attention that would have been reported to you.

Although the review was thorough, it cannot be assumed to be all-inclusive. The absence of statements in the reports concerning the institute's specific practices and procedures must not be construed as acceptance, approval, or endorsement of those specific practices and procedures.

We have appreciated the opportunity to assist MIT with its financial aid operations. Should you wish to discuss any of the enclosed information in further detail, or need additional consulting assistance, please contact us.

Sincerely yours,

The Evans Consulting Group, Inc.

7852 Eagle Ranch Rd, Fort Collins, CO 80528

Massachusetts Institute of Technology (MIT)

Management Consulting Report



May 27, 2011

Table of Contents

INTRODUCTION	4
METHODOLOGY & APPROACH	4
Overview of MIT's Student Information System (SIS)	4
Current SIS Challenges	7
Key Factors for Success	7
<i>Reporting</i>	8
<i>Flexibility</i>	9
<i>Efficiency</i>	9
<i>Service</i>	9
<i>Leadership</i>	10
TECHNICAL ASSESSMENT	10
Service Level Agreement between SFS and IS&T	10
Hardware, Operating System, and Production Operations	11
Data Feeds	11
FUNCTIONAL ASSESSMENT	12
General Operability	13
Document Collection	13
Need Analysis/Verification	14
Packaging	15
Notification	15
Disbursements	16
Reporting	17
Customer (Student) Service	17
Financial Aid Staffing	18
Documentation	18
Facilities	19
Student Employment	19
Student Loans	20
Endowed Fund (Sub-Fund) Management	21
RECOMMENDATIONS	21
Technical Recommendations	21
Functional Recommendations	22
<i>Training</i>	22
<i>Staffing</i>	23
<i>Further Automation</i>	23

The Evans Consulting Group, Inc.

<i>Student Employment</i>	24
<i>Sub-Fund Management</i>	25
<i>Loan Administration</i>	25
<i>Reporting</i>	25
CONCLUSION	26
ATTACHMENTS	
A: Comparison of Institutional Characteristics for MIT and 17 Peer Institutions	
B-1: PowerFAIDS Support Specialist Job Description	
B-2: PowerFAIDS System Specialist Job Description (Columbia University)	
C: Business Analyst Job Description	
D: Workflow Vendors with Known Installations in Higher Education	

The Evans Consulting Group, Inc.

INTRODUCTION

The Evans Consulting Group, Inc. (ECG) was engaged by the Massachusetts Institute of Technology (MIT) in January 2011 to conduct a technical and functional assessment of the existing state of the PowerFAIDS system at MIT; and deliver recommendations for improving the effectiveness of PowerFAIDS functionality and integration within MIT's existing technical and business domains.

Two ECG consultants conducted the site work at MIT from January 4-14, 2011. The remainder of this report details our approach, observations and recommendations related to the technical and functional assessments.

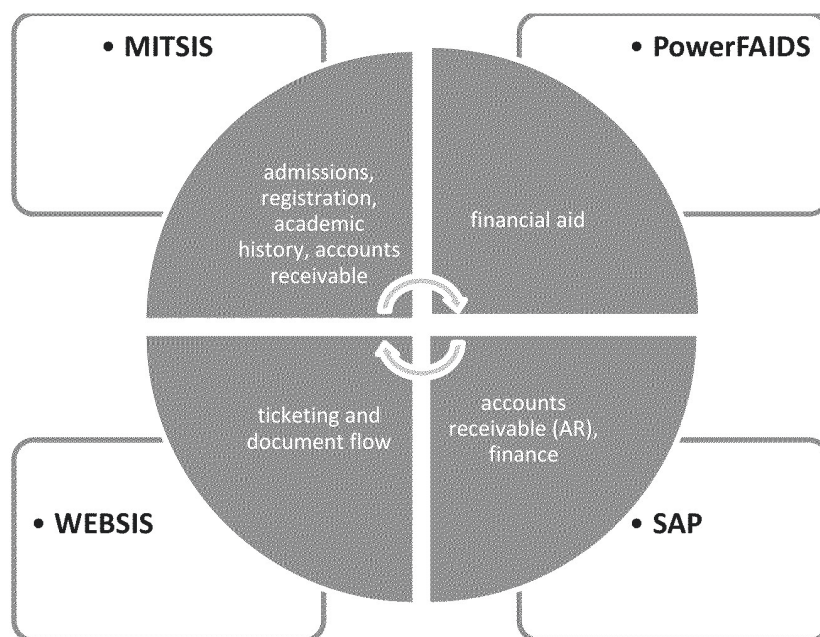
METHODOLOGY & APPROACH

ECG performed a high-level assessment of MIT's PowerFAIDS system, interfaces, procedures, and personnel by conducting extensive interviews with the Institute's officials and staff, gathering available data across the Institute's enterprise, and performing visual/physical surveys. As part of the data collection and analysis, we identified areas that may represent system stress points or risk, particularly as they relate to the Institute's strategic plan.

Overview of MIT's Student Information System (SIS)

Currently, the Institute's student information system (SIS) is comprised of several independent legacy systems that make up the school's administrative systems network (see graphic which follows). The main systems are MITSIS, PowerFAIDS, and SAP, supplemented by legacy interface systems which include: SISTIM, WEBSIS, and *MyMIT*. The interface systems provide web interfaces and additional functionality to the core legacy network.

The various systems within the SIS network are kept in sync by daily data loads and feeds between systems. The Institute utilizes a job scheduler to automate the various daily data transfers.



Each of these systems provides various functions for the college, but they lack real-time integration and connectivity to provide a thorough enterprise-wide solution. MIT's new growth initiative and five-year strategic plan have placed a premium on the proper process flow and processing capabilities of its SIS system. Without an optimized, efficient, SIS infrastructure in place, MIT faces a serious risk of being unable to meet the processing demands necessary to support its proposed enrollment increases.

MIT SIS is MIT's main administrative system. It was developed utilizing SCT Banner version 1 architecture and was modified to serve MIT's business requirements. MITSIS is utilized by most of the administrative staff, and contains admissions and enrollment records and academic history. The MITSIS application runs on an Oracle database and is hosted internally on a UNIX operating system. MITSIS has limited user-friendly reporting capabilities. MITSIS is currently integrated with PowerFAIDS for financial aid processing and with SAP for financial processing.

PowerFAIDS is utilized as the primary administrative system within Student Financial Services (SFS). PowerFAIDS is a College Board product and is utilized for financial aid need analysis, information tracking, student budgeting, packaging, and disbursement authorization. At the time of our visit, version 15.4 was the version in production; and version 16.0B, which is the most recent software release, was loaded in the test environment. Subsequently, version 16.0B has been placed into production as well.

PowerFAIDS receives both federal Institutional Student Information Records (ISIRs) and College Board PROFILE records, and it supports both federal methodology (FM) and institutional methodology (IM) for need analysis purposes. PowerFAIDS is integrated with MITSIS to populate the student record and for student accounts receivable (AR). PowerFAIDS is also interfaced with WEBSIS and *MyMIT*.

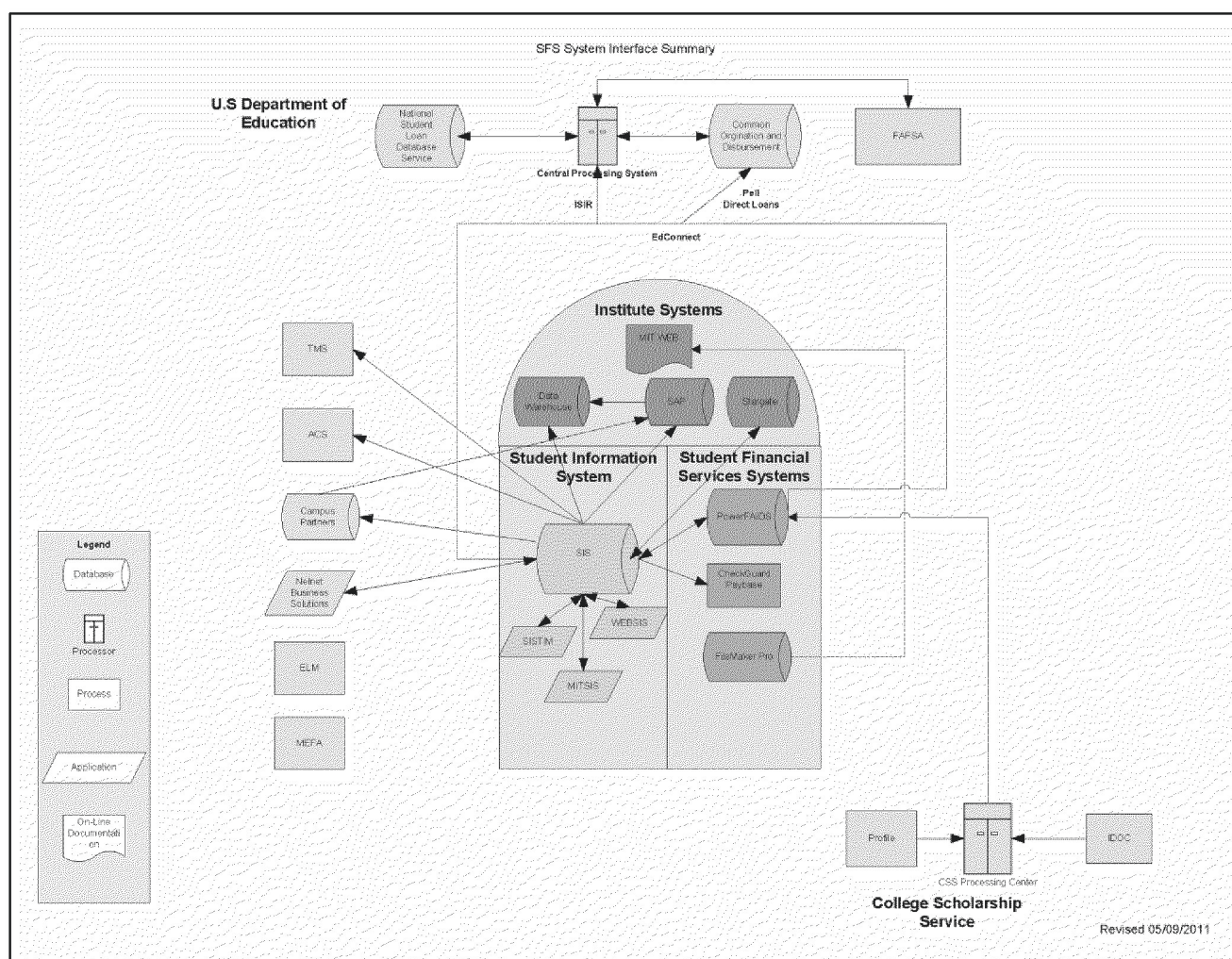
The Evans Consulting Group, Inc.

WEBSIS is a home-grown, web-based portal application that is used to store and process student communications. WEBSIS is integrated with MITSIS.

SISTIM is a home-grown, web-based application that is used primarily by the student accounts staff. SISTIM interfaces with the student AR module in MITSIS and is used to debit and credit student accounts.

SAP is a business finance and accounting software package. MIT implemented SAP financials version 1 and customized it to meet its business requirements. SAP is the primary administrative system utilized by the business office. The system has the capability for customized expert-level reporting. This product is currently integrated with the MITSIS system.

The overall SIS solution is graphically illustrated below.



Current SIS Challenges

While on site at MIT, ECG conducted interviews with various executives, administrators, and staff members. During the course of these interviews, we documented several issues that plague the existing SIS system, with an emphasis on the PowerFAIDS system. We found that many of the MIT team members were eager and enthusiastic about the future of the Institute; however, they also expressed the need to resolve these challenges in order for the Institute to move forward effectively.

The following issues were echoed during the interviews:

- Administrative staffs are isolated and information does not flow easily between departments.
- Administrative staffs have to maneuver between several different systems to perform tasks.
- Systems, with the exception of PowerFAIDS, have limited reporting capabilities.
- Data has to be reviewed and validated repetitively for errors.
- There is a lack of PowerFAIDS operational and system knowledge.
- PowerFAIDS end-user documentation is minimal.
- PowerFAIDS end-user training is outdated and limited to just a few individuals.
- There is a lack of system-supported workflows resulting from the frequent “hand-offs” from system to system.
- End-user support and technical assistance provided by Information Services & Technology (IS&T) are limited.
- There is a reliance upon shadow databases to support several financial aid functions, such as student employment, tracking of graduate research assistantships (RAs) and teaching assistantships (TAs), etc.
- Documentation of systems and processes is not sufficient for long-term strategic vision.

While the above points accurately represent information collected during the engagement interviews, MIT’s comments on the draft report indicate that there was (and is) documentation on the SFS intranet and in the binders that the SFS business analyst maintains, which was not reflected in our report. Unfortunately, we were not made aware of this repository of information until after the on-site engagement had concluded. While a brief review of this material suggests that we probably overstated the deficiencies, SFS acknowledges that there is still room for enhancement, as evidenced by the positive outcomes from the College Board consultant visit that identified previously undocumented operational functionalities.

A positive factor in MIT’s environment is the availability of experienced systems developers and programmers with much knowledge of the systems that interface with PowerFAIDS. As a result MIT has the potential to more fully integrate existing systems to achieve enhanced processing efficiency.

Key Factors for Success

Our assessment identified five key factors that are central to the success of the Institute’s SIS:

The Evans Consulting Group, Inc.

- Reporting
- Flexibility
- Efficiency
- Service
- Leadership



Reporting

MIT operates three primary software packages that constitute its SIS system: MITSIS, PowerFAIDS, and SAP. PowerFAIDS has a report-writing engine built into its application that supports both custom and canned reporting. The PowerFAIDS reporting engine does not require users to have expert knowledge of SQL to produce custom reports, but users must be familiar with PowerFAIDS mnemonics, which blocks data into sets to be used in reports. Frequently used custom reports can also be scheduled to run automatically through the PowerFAIDS scheduler. The PowerFAIDS canned reporting capability does not support MIT-specific data elements.

The Evans Consulting Group, Inc.

While each of the other systems has some reporting capabilities, the best opportunity for reporting is through the data warehouse. MIT's data warehouse currently does not contain all of the data from the SIS systems and thus lacks the ability to produce all of the necessary federal compliance and internal management reports. Custom reporting from the data warehouse is cumbersome due to the fact that the data is not arranged in a relational manner. Reporting functionality has, to this point, been limited to data analysts who are more familiar with the data structure.

Flexibility

Efforts to streamline business and financial processes have been constrained by legacy systems and IT governance. Although many core functions have been automated, several workarounds and shadow systems have been created to fulfill gaps in system functionality. Many of the core SIS systems (other than PowerFAIDS, which does not allow user customization) were customized upon implementation and require considerable resources to maintain. The current SIS also lacks tools and functionality necessary to drive the business rules and processes efficiently.

Efficiency

The current model is built upon scalability and robustness necessary to meet the Institute's data needs; however, system sourcing revealed several gaps in the current system functionality. Administrators and staff are required to access multiple systems, which require multiple passwords. Lack of functionality between systems produces a need for staff members to resort to manual processes to accomplish routine tasks, which results in a higher risk of transaction errors and internal control failures. Documentation and flowcharts that outline system processes and procedures exist, but could be enhanced (see earlier comments on page 7 of this report).

There are several shadow databases in operation outside of the SIS system, including those used by the financial aid function. These shadow databases store critical information for student employment and institutional scholarships, for example, and possess major vulnerabilities due to the lack of security, system backups, and maintenance.

Service

Even though the Institute's Information Services & Technology (IS&T) staff has expert knowledge and supports most of the SIS system, they have limited knowledge of PowerFAIDS. Very few, if any, IS&T and Student Financial Services (SFS) staff have the requisite background to administer and support the system. Institutional knowledge on the configuration and capabilities of the system is limited. Currently, the Institute has limited ability to recover from a catastrophic system failure.

The Evans Consulting Group, Inc.

Leadership

MIT has a strategic planning mandate in place that outlines the de-customization of components of the SIS system. Decommissioning studies have shown the complexity and risk involved in this endeavor. SFS and IS&T should collaborate more frequently, fully discuss mutual needs, and create a shared vision and plan to improve the current SIS system.

TECHNICAL ASSESSMENT

Service Level Agreement between SFS and IS&T

The current service level agreement in effect between SFS and IS&T includes only PowerFAIDS server support. IS&T also supports the deployment of the PowerFAIDS application to users. IS&T does not, however, support the PowerFAIDS application itself, nor does it provide any additional end-user support to SFS regarding the configuration and functionality of PowerFAIDS. (MIT commented that desktop support is not currently provided to SFS by IS&T, nor is it provided by DUE Desktop Services, which supports other departments, because PowerFAIDS is considered “non-standard” software. Thus, SFS is left to its own devices for desktop support at the present time.)

The current level of support provided by IS&T to SFS for PowerFAIDS is insufficient to meet SFS business requirements. PowerFAIDS allows business rules to be defined utilizing an internal rule-writing engine. Using this rule-writing engine, students can be grouped with selection sets, and complex operations, such as budgeting and packaging, can be carried out by defining and coding algorithms. Because the IS&T staff does not support PowerFAIDS configuration, its programming staff is unfamiliar with the constructs of PowerFAIDS rule writing.

- IS&T involvement in PowerFAIDS is limited to installing version updates, providing server support, and maintaining interfaces to MITSIS.
- There is no evidence of any significant awareness of overall financial aid process or understanding of PowerFAIDS technology; current knowledge is limited to specific functions (interfacing, etc.).
- PowerFAIDS and MITSIS are currently kept “in sync” through daily data feeds. Both the technical and functional staff need a greater awareness of what processes are controlled by the data feeds.
- A PowerFAIDS knowledge transfer is needed to ensure that both systems function properly.

SFS employs the services of a business analyst and data analyst, both of whom have some familiarity with selection sets and report writing; however, neither of these analysts have experience with interpreting business rules into algorithms and sophisticated selection sets.

Most of the PowerFAIDS configuration was completed by a previous director of financial aid. However, there wasn't any written documentation collected upon his departure to explain his setup.

The Evans Consulting Group, Inc.

The current financial aid staff at MIT lacks a systems specialist who understands both the inter-workings of PowerFAIDS and how it interfaces with MITSIS. The Institute should focus on cross-training with the technical and functional staff to increase institutional knowledge and to increase operating proficiency. Cross-training will also help to create backups for staffing losses and shortages.

Hardware, Operating System, and Production Operations

Currently, the PowerFAIDS application is hosted internally at MIT. The PowerFAIDS application resides in two instances, test and production. Two servers are dedicated for these instances. The PowerFAIDS application runs on a SQL server 2008 database with service pack 1 installed. The production server is a Dell PowerEdge 4600 server utilizing the Windows S2003 SP2 operating system. The PowerFAIDS test instance has the same system specs, with the exception of the server, a Compaq Proliant 350. The production system is backed up nightly; however, the system is not currently mirrored and replicated for recovery.

Data Feeds

MITSIS and PowerFAIDS systems are highly integrated and are kept in sync through daily data feeds between the systems. Student demographic data is transferred from MITSIS to PowerFAIDS. This data transfer is considered an external update (EU). The EU dataset includes admissions, registration, and enrollment data. There are four external files, which are classified as inserts for new student records and updates for existing student records. Both updates and inserts are separated into two parts across two award years in order to facilitate the packaging of fall and spring awards. Updates are incremental and only student records that have changed in MITSIS since the last update are included. However, currently a complete record with all fields populated must be extracted to properly update PowerFAIDS.

The EU process also includes custom data fields that have been defined in PowerFAIDS to capture data from MITSIS critical to system functionality. The EU process is controlled by the PowerFAIDS job scheduler application within the PowerFAIDS Administration tab. The PowerFAIDS scheduler is set to check the drop-box directory on the PowerFAIDS server for updates every hour, as indicated on the following table.

NAME	TYPE	FREQUENCY	DESCRIPTION
EU Updates 2010-11	EU	Hourly	Changed student records for 2010-11 aid year
EU Inserts 2009-10	EU	Hourly	New student records for 2009-10 aid year
EU Updates 2009-10	EU	Hourly	Changed student records for 2009-10 aid year
EU Inserts 2010-11	EU	Hourly	New student records for 2010-11 aid year

The Evans Consulting Group, Inc.

PowerFAIDS transfers award, budget, need analysis, period of enrollment, and financial aid requirements data to MITSIS daily. In addition, PowerFAIDS transfers disbursement data files to MITSIS for processing. Once the data resides in MITSIS, it can then be used to populate SAP and the data warehouse. However, we observed that the data warehouse needs to be better organized for cross functional reporting from multiple systems. The data needs to be organized in a relational manner so that data can be queried across multiple years. (We understand that an effort along this line may already be in progress.)

The files for transfer are produced in PowerFAIDS using the report writer application. A custom report is produced and is scheduled to run daily through the PowerFAIDS scheduler application. These jobs are identified in the following table.

NAME	TYPE	FREQUENCY	DESCRIPTION
PFAWD1.FFR	Custom Report	Daily	All Awards
PFAWD2.FFR	Custom Report	Daily	Awards with changes
PFNED.FFR	Custom Report	Daily	Student need analysis
PFPOE.FFR	Custom Report	Daily	Student period of enrollment
PFREQ.FFR	Custom Report	Daily	Student financial aid requirements
PFBUD.FFR	Custom Report	Daily	Student budgets

A drop box is used as an intermediate point for files that are transferred from MITSIS to PowerFAIDS and from PowerFAIDS to MITSIS. The PowerFAIDS scheduler is set to run automatically at 2:00 AM each morning. Data loads are pushed out to the drop box. PERL scripts aid in the transfer and concatenation of files. There are four PERL scripts used: rptransfer, prodtransfer, uadoctransfer, and get_EU_files. Once in the drop box, a data feed engine moves the files between the drop box and MITSIS. An email confirmation is sent out to alert users that the transfers have completed successfully. However, if there is a problem within the file transfer, staff is not alerted and they have to search in three locations to try to find where the error occurred. Elimination of the drop box would streamline processing and reduce the time and possible error points within the transfer between the two systems.

ECG did not perceive a problem with the frequency of data transfers. Typically, one would expect to see this type of frequency during peak periods of the year, but it is not a bad thing that SFS does it all year long unless it overloads one or more of the systems, which apparently only happens once or twice a term. SFS could get by doing data transfers less often during non-peak periods, but we did not see evidence that it currently is a problem during these times.

FUNCTIONAL ASSESSMENT

The financial aid operation at MIT is a sophisticated, well-designed model worthy of emulation at other institutions. Its location within the organization of Student Financial Services is both appropriate and effective, in that it facilitates closely related functions, such as student accounts and student employment, within the same administrative structure for maximum coordination and communication.

The Evans Consulting Group, Inc.

At the same time, the delivery of student aid at MIT is not without its problems. While our focus was on the effective use of PowerFAIDS and related information systems, it was necessary to look at the full scope of the financial aid operation to fully appreciate the dynamics of the systems support available to staff and students. Our observations are described in the following sections.

ECG's proposal indicated that we would conduct a lifecycle review of randomly selected applicant files during the on-site visit. The shortened time on campus because of the weather made it necessary to adapt our typical review; however, ECG reviewed PowerFAIDS screens with SFS staff for a random sample of five electronic files in each major applicant category (i.e., new student, transfer, continuing, and graduate). This allowed ECG to assess the PowerFAIDS display capability and determine that the lifecycle process, as detailed in the process flowcharts provided by MIT for each applicant category, was functioning, as it should.

General Operability

- SFS and IS&T staff are isolated and information does not flow easily between departments.
- In addition, there is a lack of PowerFAIDS operational and system knowledge in both organizations.
- Although PowerFAIDS is the financial aid system of record, the financial aid function is dependent upon several other systems/databases for necessary processing and/or retrieval of data.
- We noted that SFS staff, especially at the customer service counter, are required to maneuver between several different systems to perform otherwise routine tasks.
- Data has to be reviewed and validated repeatedly for errors; for example, all award letters are manually reviewed before mailing. ECG was advised, however, that there was significantly less manual reviewing this year as result of what SFS learned during the recent College Board consulting.
- Overall, there is an absence of system-supported workflows. Instead, the SFS staff relies heavily upon exception reports and personal observation or student inquiries to manage an application as it moves through its lifecycle.

Document Collection

- MIT uses the College Board's IDOC process for collecting required documentation for domestic students. International students provide their hard-copy documentation directly to MIT by mail, FAX, or email attachments.

The Evans Consulting Group, Inc.

- The financial aid application deadline is February 15 for new students, April 15 for continuing students. All domestic students are required to file both the FAFSA and the College Board PROFILE; additional forms are required for non-custodial parents and self-employed business or farm owners. International applicants do not file the FAFSA, but use the international version of PROFILE.
- The office uses Outlook email to request missing documentation because of technical limitations using the PowerFAIDS follow-up capability; this is a labor-intensive process involving data merges.
- Communications with students and families is problematic because the outbound email must be attributed to a specific user, and thus all responses (including undeliverable notices) would come back to that user, rather than to a common pool location. (All outbound emails must be linked to a current employee or the system will not allow the email to be sent.) MIT security protocols do not allow “alias” email addresses, although staff have managed to by-pass this constraint for some purposes.
- Freshmen and transfer applicants can also determine missing documents via the *MyMIT* portal, but returning students cannot.
- Graduate student application cancellations often are not provided to SFS on a timely basis by the individual departments, resulting in unneeded communications to this population.

Need Analysis/Verification

- MIT uses the federal methodology (FM) for determining eligibility for Title IV awards.
- A modified institutional methodology (IM), primarily on the basis of adaptations agreed to by the “568 Group” but with some unique MIT adjustments, is used for determining eligibility for institutional awards. As noted earlier, the Institute uses the results of the College Board PROFILE form and process for non-custodial parents.
- Since MIT participates in the Title IV Quality Assurance (QA) Program, it can set its own verification requirements; however, the Institute equals or exceeds U.S. Department of Education (ED) requirements in that all parent data and all student data provided via IDOC is verified. This is a conservative view that strengthens the validity of the data used to award federal and institutional aid.
- All new student applications are reviewed analytically by a professional staff member, and then files warranting a second analysis are reviewed a second time by another staff member.
- Like many institutions, MIT experiences problems with processing subsequent ISIRs.

The Evans Consulting Group, Inc.

Packaging

- MIT meets full need for all undergraduates, made possible by a self-help expectation of \$3,400 or \$5,500.
- Outside awards can be “credited” against self-help; otherwise, the self-help expectation is met through student employment and loans.
- Multiple packaging formulae, some due to commitment to “grandfather” prior recipients, are utilized. These formulae, devised by a former director, are not documented and are only marginally understood by the current financial aid staff. (ECG was advised that with the help of a College Board PowerFAIDS consultant, the SFS staff has been able to achieve significant simplification since the time of our on-site review.)
- The “redetermination” function in PowerFAIDS, used frequently for making award revisions, can be problematic because of the interdependency with algorithms, but SFS has indicated to us that staff members now understand the issue after their recent on-site consulting with the College Board.
- Perkins Loans get priority awarding in the allocation of loan funds.
- MIT Technology Loans are the loans of last resort for undergrads, but the primary loan source for international students.
- State scholarships (five states only) are packaged, but are flagged to prevent disbursement until funds are received.
- MIT has approximately 800 Pell recipients in the 3,400 need-based aid recipients.
- All aid packages assume full-time enrollment until the census date (two days after Add date) unless credit hours at that time indicate otherwise.
- Automated packaging starts with a clean slate, i.e. without regard to prior year awards.
- MIT grants are initially awarded from a single pool of funds, and then later allocated to sub-funds; MITSIS has an automated assignment capability that handles most allocations, and the rest are assigned manually.
- The financial aid satisfactory academic progress (SAP) policy is the same as the academic policy; if a student is allowed to enroll, he/she is making satisfactory progress. Thus, it is not necessary to utilize the PowerFAIDS capability to monitor SAP.

Notification

The Evans Consulting Group, Inc.

- The first batch of award letters for new students are sent with the admissions decisions on March 14th of each year, with weekly mailings thereafter as awards are finalized. Continuing student notifications begin around June 15.
- All award letters have to be reviewed manually for accuracy before they are mailed.
- All award letters are paper, mailed via U.S. Postal Service. Staff would prefer to use some sort of email distribution, but that is problematic because the institutional ID is not assigned via *Kerberos* (network authentication) system, which is necessary for using the MIT email system, until applicant is “admit/accept”; many awards will precede “admit/accept” status.
- The email limitation above is not a hindrance for continuing students, as MIT email addresses would normally be available for continuing students.
- Using postal mail is especially problematic for international students, who are often in transit during this time.
- As noted earlier, graduate student application cancellations/denials often are not provided by the departments to SFS on a timely basis, resulting in unneeded communications to this population.

Disbursements

- State scholarships are flagged when packaged to prevent disbursement until funds are received; these flags must be removed manually when the funds are available to MIT.
- Since instructors do not officially take attendance, financial aid eligibility is dependent upon the registrar’s determination of “earliest likely date of separation” for release of funds and determination of refunds. The registrar in turn relies upon the undergraduate counseling office and graduate advisors to ascertain this date. Consequently, it is not possible to fully automate the Return to Title IV (R2T4) process because of the time lag in ascertaining the last date of attendance.
- After an initial batch run of finalized awards, financial aid staff provide ongoing disbursement authorizations via PowerFAIDS reporting in batch on a daily basis.
- The MITSIS award functionality does not support uneven splits of award amounts over multiple terms; however, the MITSIS disbursement functionality does allow uneven splits of award amounts. This is only a problem for sub-fund assignments that are automatically processed in the fall and there are only about 15-20 of those awards per year.
- Nonstandard terms for some graduate programs, especially the Sloan Executive MBA, are problematic.

Reporting

- Because of the multiple repositories of financial aid-related data, reporting is a challenge.
- If all required data for a given reporting need is contained in PowerFAIDS, the internal report writer capabilities are typically sufficient for most purposes. Because of the number of MIT-defined data elements in use, however, the PowerFAIDS customized report feature is often required. (As noted earlier, ECG was informed that the visit by a College Board PowerFAIDS consultant since the time of our review significantly reduced the number of MIT-defined elements.)
- Ease of use of the PowerFAIDS report writer is both good and bad: With minimal training, the financial aid staff can readily create and run their own reports. However, this has created a large pool of inadequately labeled report specifications that encourages creating another new report rather than using one previously created that would serve the intended purpose.
- MITSIS, on the other hand, is not user-friendly when it comes to report writing, as it requires SEQUEL expertise. If some or all of the needed data is stored in MITSIS, specialized skill is needed to extract report data.
- The Institute-wide data warehouse is a viable option, except for two problems:
 - The financial aid-related data stored in the warehouse is limited: and
 - The structure of the data in the warehouse requires more technical know-how than would typically reside in a financial aid organization. Although we acknowledge that SFS has a dedicated data analyst position and the person in that position today is well-versed in extracting data from the warehouse, staff turnover could be problematic.
- The financial aid operation is heavily dependent upon printed or displayed reports for monitoring normal workflow. This creates many opportunities for human error, even among the most talented and dedicated staff. While at this point the operation could not get along without these reports, there are better ways to address this functional need.

Customer (Student) Service

- The SFS “one stop” service center appears to be working quite well, perhaps the most effective use of this concept we have observed. It seems to incorporate the right mix of student-required services, provided on a timely basis.
- The initial intake counter has three knowledgeable receptionists/counselors, with space to add more on heavy traffic days.
- The biggest challenge to the staff seems to be the multiplicity of data sources they need to access to solve the wide spectrum of issues they are asked to address. The personnel we

observed seemed to have this problem well under control because of experience, but training new staff would seem to be problematic. This challenge exists not only with the data display function, but with multiple output devices as well.

Financial Aid Staffing

- The financial aid (FA) staff appears to be quite capable, and probably adequate in size to carry out the necessary tasks of effective delivery, **assuming** that some of the current manual processes can be relieved through additional automation (for example, the visual review of each award letter).
- There are several instances where critical functions are known to only one individual. There is a lack of adequate cross-training across the SFS staff, resulting in the risk of some functions going undone (or done improperly) in the event of staff turnover or even temporary absence.
- The level of service to students is close to being “maxed out” in the current environment.
- ECG conducted a survey of several peer institutions that are also PowerFAIDS users to determine best practices. (See Attachment A.) Our survey included 17 institutions, all of which are current PowerFAIDS users; 14 of the 17 institutions surveyed are designated as private non-profit, two were public, and one was private for-profit.
 - Most (16 out of 17) of the institutions surveyed reported that the IT department handled some aspect of PowerFAIDS application software. These institutions reported that the IT department was responsible for the installation and upgrades of the software on the institution’s servers, as well as the deployment of the client software to desktops. Several of the schools reported using network tools to rapidly deploy PowerFAIDS updates to user desktops.
 - Of the 17 institutions that responded to our survey, eight institutions reported yearly aid disbursements that exceeded \$50 million. Seven of these schools have a PowerFAIDS specialist on the financial aid staff responsible for writing selection sets and algorithms.

Documentation

- Although SFS has an extensive policy and procedures document available to staff online, written documentation of MIT-specific PowerFAIDS uses was found to be lacking.
- The risk is heightened where the function is shared by multiple staff, as too many functions are subject to “folklore”, i.e. “this is the way we have always done it” inertia.
- The former director (twice removed) left without ensuring adequate knowledge transfer or documentation of certain procedures. Documentation is especially inadequate for the

The Evans Consulting Group, Inc.

packaging function. An hour or so of verbal description of those parameters by the departing director to unfamiliar staff was far from adequate.

- Actual parameters in use can be obtained from the setup screens, but not the rationale behind them.
- Currently desired rationale must be documented; parameters then should be established to support the rationale, not the other way around. (Subsequent to our visit, SFS brought in a PowerFAIDS consultant to review the packaging parameters, resulting in a substantial reduction in their complexity.)

Facilities

- The physical environment housing SFS and its component parts is certainly more than adequate. The office is centrally located in an area with heavy student traffic. External bulletin boards and form displays minimize the need for students to talk to staff just to get a form or general information.
- The waiting area appears large enough to accommodate student traffic wanting to see staff except perhaps on or around registration periods.
- Senior staff members have enclosed offices, either just off the reception area or two floors above in an area served by an elevator. Our visit was held during the break between semesters, so student traffic was low, but the space appeared to be adequate for most times of the year.
- Office furnishings were modern and appeared to be adequate (although we did not evaluate the age of the desktop computers, printers, etc.).
- Shared equipment, such as copiers, were readily available to staff.

Student Employment

- MIT's approach to student employment, especially the way Federal Work-Study (FWS) funds are allocated after the fact, is unique in our experience. The current process reflects the independent nature of the individual departments and a long history of "need-blind" hiring of the most qualified applicants without regard to FWS eligibility.
- Although apparently not cited in audits or program reviews, the Institute's allocation process for FWS dollars, as we understand it, might raise questions in a thorough audit or review about adherence to federal regulations for allowable FWS expenditures if a clear audit trail is not maintained. The Institute commented that they do not agree with ECG's finding in this area, indicating that their guiding principle is the creation of job opportunities for all students, regardless of FWS eligibility. Furthermore, the Institute commented that no auditor in 35 years has ever questioned or expressed concern over

The Evans Consulting Group, Inc.

their administration of FWS, and that it is their prerogative to tax departments by requiring them to pay 100 percent of a student's wages even though the Institute receives the benefit of the federal subsidy through FWS and posts it to a central account. Finally, the Institute noted that cumulative FWS earnings are not stored in PowerFAIDS.

ECG acknowledges the Institute's comments and we have no issue with the philosophy of creating work opportunities on a need-blind basis. Our concern, rather, is with the process whereby the individual departments pay 100 percent of FWS wages and an equivalent amount of FWS drawdown is subsequently transferred to an SFS unrestricted account used for scholarship purposes. This does not appear to be compliant with the requirements of tracking FWS funds to individual students. We would be remiss in not identifying this as a potential problem.

- Most student employment functions are handled in MITSIS and a "shadow system," rather than in PowerFAIDS. Only student FWS awards are recorded in PowerFAIDS. As mentioned earlier, this places an additional reliance upon a manual process to identify potential overawards when the student earns more than the approved amount.
- The system-generated billings for off-campus employer payroll shares are not readily understandable by the recipients and are currently manually redone each pay period. We understand that there is currently an effort underway by SFS and IS&T to correct this problem and render the rework unnecessary.

Student Loans

- Our review of federal student loan processing did not reveal anything out of the ordinary, as MIT has been participating in the Direct Loan Program since 1994. Obviously, the administration of Direct Loans is relatively new and federal regulations do not afford very much latitude on the part of the Institute.
- The administration of MIT loans seems to follow a logical path. The staff managing the loan programs did not identify any significant problems, although there were a couple of data entry anomalies with Campus Partners. The need to pass loan data from PowerFAIDS through MITSIS to Campus Partners seems a little unwieldy and we are uncertain why it is really necessary.
- The processing of private loans is dictated by the lenders involved and is managed using either ELM or the system of record for the Massachusetts Educational Financing Authority (MEFA).
- Like many institutions, MIT uses its own staff to supplement the collections efforts of Campus Partners. The ability to draw upon the borrower's loyalty to MIT has an edge over reaction to a third party servicer, and typically makes the in-house effort cost-effective.

Endowed Fund (Sub-Fund) Management

- MIT has an extensive endowed scholarship program equating to approximately 16 percent of MIT's endowment. It is typically referenced as "sub-fund" administration.
- Scholarship awards are initially awarded from a pool of the sub-funds via the PowerFAIDS packaging routine. Subsequently, staff revisit the award after the end of the second term and allocate each award to a sub-fund. "Unstewarded" sub-funds (those without donor restrictions) are allocated with a computational routine built into MITSIS. "Stewarded" funds (those with donor restrictions) are assigned manually.
- A Student Information Form is completed by "pool" recipients in WEBSIS to collect personal data for use in allocating the restricted funds. The data is downloaded to MITSIS for reference in the allocation process. The data from this form flows into the data warehouse, thus allowing Resource Development to access those stewarded funds and scholarship recipients who have given permission for their information to be shared with a donor.

MIT commented that they did not think ECG understood the sub-fund process properly, nor did ECG do an in-depth analysis on whether PowerFAIDS could cope with the number of funds, and their unique restrictions and preferences. While it is true that we did not do a detailed analysis of the various sub-fund requirements to determine with certainty that PowerFAIDS could allocate to individual sub-funds from the onset, we based our suggestion on the known discrimination ability of PowerFAIDS packaging algorithms. However, we are persuaded by further staff comments that it may not be the most productive approach to duplicate a capability which already exists in MITSIS.

RECOMMENDATIONS

Technical Recommendations

ECG has identified a number of actions that should be considered to strengthen the technology supporting SFS and the financial aid delivery process:

- We recommend that IS&T be charged with providing desktop support to SFS as it relates to PowerFAIDS operations. SFS is not staffed to provide this kind of support and the DUE Desktop Services has declined to assist since PowerFAIDS is deemed "non-standard" software.
- The Institute should investigate network software deployment tools such as Citrix for updates to desktops running the PowerFAIDS application.
- The Institute should also consider virtualization versus replacing old servers. This would be advantageous because:

- Lower number of physical servers – MIT could reduce hardware maintenance costs because of a lower number of physical servers.
 - By implementing a server consolidation strategy, MIT could increase the space utilization efficiency in its data center.
 - By having each application within its own "virtual server," MIT could prevent one application from impacting another application when upgrades or changes are made.
 - MIT can develop a standard virtual server build that can be easily duplicated, which will speed up server deployment.
 - The Institute could deploy multiple operating system technologies on a single hardware platform (i.e. Windows Server 2003, Linux, Windows 2000, etc).
- We recommend that MIT consider implementing backup-restore/mirroring via RAID technology, which would provide an important insurance policy against corrupted or lost data. For the less technical persons reading this report, RAID, an acronym for *Redundant Array of Independent Disks*, is a technology that provides increased storage functions and reliability through redundancy. This is achieved by combining multiple disk drive components into a logical unit, where data is distributed across the drives in one of several ways called "RAID levels." RAID systems involve two key goals: increase data reliability and increase input/output performance. When multiple physical disks are set up to use RAID technology, they are said to be *in* a RAID array. This array distributes data across multiple disks, but the array is addressed by the operating system as one single disk. RAID can be set up to serve several different purposes.
 - MIT may wish to go one step further with the use of RAID 1+0, with its mirrored sets in a striped set (minimum four disks; even number of disks), which provides fault tolerance and improved performance, but increases complexity. The key benefit of RAID 1+0 is that it creates a striped set from a series of mirrored drives. In a failed disk situation, RAID 1+0 performs better because all the remaining disks continue to be used. The array can sustain multiple drive losses so long as no mirror loses all its drives. Tape drives and/or a storage area network is still needed to provide a complete backup solution so that all data may be backed up and recovered.
 - There may be opportunities to streamline the data transfer process, including:
 - Elimination of the drop box for file transfers;
 - Providing the PowerFAIDS scheduler with a more robust alerting mechanism similar to Kron.

Functional Recommendations

While the delivery of financial aid services at MIT is on a par with, if not exceeding, that of other peer institutions, there are several "Achilles' Heels" that should be addressed. While none of these stress points are likely to be fatal, significant staff effort is expended to compensate for more effective/efficient capabilities.

Training

The Evans Consulting Group, Inc.

- Regardless of the future level of IS&T involvement in PowerFAIDS support, addressed later, there is need for more substantial PowerFAIDS training for the SFS staff at a user level.
 - Staff could attend training at the College Board “school” in Virginia, but that could limit the MIT attendees. To maximize participation, bringing instruction to MIT is recommended (ECG could do this).
- In addition to end-user training, there is a need for at least one individual, preferably two, who have a deep technical understanding not only about how PowerFAIDS works, but why it does what it does, including the many interactions with other systems.
- Plans should be in place to train new staff on the basics, and periodic updates for all staff when significant changes are made to PowerFAIDS.

Staffing

- Because the current PowerFAIDS technical knowledgebase is not sustainable, we recommend:
 - Assign additional dedicated support from IS&T (probably one FTE);
 - Hire a dedicated technical specialist (or train existing personnel) as part of the financial aid staff; or
 - Both.
- All peer institutions of comparable aid volume (see Attachment A) have elected to have a technical specialist on SFS staff. ECG recommends this solution because it allows for a more complete immersion in the regular routine of the office, and thus creates a better understanding of overall staff needs. See Attachments B-1 and B-2 for sample job descriptions.
- Even if technical support is made available within financial aid, however, more IS&T involvement is needed. We recommend that an IS&T staff member (perhaps a business analyst) be designated to provide needed support to the PowerFAIDS system, receiving all the technical training provided to the SFS technical specialist, and serving as the back-up for that individual. See Attachment C for ECG’s recommended job description.
- The IS&T liaison should also coordinate all of the relationships between IS&T and SFS, including the hardware and desktop support (see first technical recommendation), the interface development and maintenance, etc.
- SFS and IS&T need to collaborate more fully, meeting regularly to discuss needs, and create a shared vision and plan to improve the current SIS system.

Further Automation

The Evans Consulting Group, Inc.

- Document Tracking – Current use of Outlook email for follow-up is inefficient and error-prone. Steps should be taken to send follow-up notices directly from PowerFAIDS by:
 - Devising a workaround or exception to the MIT restriction on email from/to employee-specific addresses only;
 - Using available personal email addresses for follow-up with new/transfer applicants lacking MIT address when communicating; use USPS delivery only as the last resort;
 - Additionally, posting the missing documents list on each prospective graduate student's portal site on WEBSIS.
- Subsequent ISIR transactions are automatically pushed from the Department of Education through EDconnect when a student or parent or a school (or the CPS) makes a change that alters the EFC result. PowerFAIDS should be configured to evaluate the most recent ISIR record **before** a student is packaged.
- Steps should also be taken to trigger a review of the award when a new ISIR arrives **after** packaging has been completed.
- Award Notification – MIT needs to move to email award notifications providing a link to portal display of the student's award and online accept/decline recording. (Use of email to deliver the award letter itself presents security issues.) We recommend using available personal email addresses for notifying new/transfer applicants who lack an MIT address when awarding; use USPS delivery only as the last resort.
- We are conflicted between the introduction of NetPartner as the financial aid delivery portal versus enhancement of the existing WEBSIS student portal. Although NetPartner would probably be shorter to implementation and serve SFS objectives more thoroughly, we would hate to give up the ability of the WEBSIS portal to provide students with a single location for all functional areas. We lean toward enhancing WEBSIS unless the current technical limitations cannot be effectively overcome.
- We recommend that MPN signing for all loans other than Direct Loans be put online through an email link to the student portal on WEBSIS, including support for electronic signature capture.
- SFS places too much reliance on exception reports, with many opportunities for human error, to keep applications flowing through their lifecycle. This problem is compounded by the use of multiple systems – many “hand-offs” make it difficult to track the process flow of individual applications. Workflow management software is needed to “push” work assignments to individual staff members immediately upon login each day, prioritized according to the mission-critical nature of the task, but otherwise on a first-in, first-out basis. Several commercial systems (see Attachment D) are available to provide automated allocation of work, or MIT could build its own.

Student Employment

The Evans Consulting Group, Inc.

- A thorough review of FWS administration is urged, to make sure there are no compliance issues and that the placement process is as efficient as possible, notwithstanding the need to meet the expectations of the employing departments.
- Analysis should include a review of the practicality of posting student earnings to PowerFAIDS as a means of protecting against overawards.
- Analysis should also include a review by the business office, or some other accounting expertise, of the process used in accounting for FWS expenditures, to be certain that the federal requirements for audit trail are being met.

Sub-Fund Management

- ECG recommends that SFS fully explore the potential for doing more of the assignment of institutional scholarships funded by endowment funds with the automated support available within MITSIS. It may prove to be necessary to manually assign the most highly restricted funds, but we were advised that MITSIS has a strong selection capability that should work effectively for at least the ~~unrestricted~~ and less restricted awards. The current manual process is highly labor-intensive, and may be more personalized than it needs to be.

Loan Administration

- An analysis should be done to determine the need to pass loan data from PowerFAIDS through MITSIS to Campus Partners. Unless there is a necessary process, a direct interface between PowerFAIDS and Campus Partners would reduce the complexity of the transfer.
- Another analysis should be done to determine what would be required to incorporate private loan processing more fully into the PowerFAIDS awarding and tracking routine. This could be used to supplement the record keeping available from the lenders and their agents, and to more fully automate the process for monitoring overawards. We would like to at least see the proceeds of alternative loans posted to the student's PowerFAIDS record to make it easier to identify aid in excess of the cost of attendance.

Reporting

- Although the reporting capabilities of PowerFAIDS are extensive and relatively easy to use, the process should be controlled, by:
 - Developing a standard naming convention that describes the nature of the report so that others can easily evaluate the utility for their own purposes, also to reduce redundancy.
 - Requiring a review of each custom report construction by the SFS data analyst to minimize redundancy.

The Evans Consulting Group, Inc.

- In conjunction with IS&T and data warehouse staff, SFS should develop a comprehensive plan to capture and store within the warehouse commonly used financial aid data currently housed in the many systems and databases, so it can readily be retrieved, manipulated, and extracted for reporting purposes. We understand that there are efforts already underway to enhance the reporting capabilities of the data warehouse facility, which should make it easier to use by non-technical personnel.

CONCLUSION

Since recreating the SIS environment is not in the cards, at least short term, MIT needs to make marginal enhancements to create greater efficiency and fewer opportunities for error. During the course of this engagement, ECG identified the ten greatest risks being faced by SFS in the effective delivery of financial aid to MIT students.

1. Inadequate PowerFAIDS technical support;
2. Inadequate PowerFAIDS training;
3. Inadequate PowerFAIDS setup documentation;
4. Insufficient automated workflow support;
5. Constraints to effective student communications;
6. Inadequate IS&T involvement;
7. Too many single points of failure;
8. Student employment process;
9. Processing subsequent ISIRs; and
10. Keeping PowerFAIDS and MITSIS in sync.

The recommendations above are specifically designed to reduce, if not eliminate, these risks; or to highlight areas where further analysis is needed. The remaining analysis can either be pursued by MIT staff, or contracted to ECG or another firm.

MIT has a solid financial aid program, excellent personnel, and good facilities, but there is a need for prompt, focused attention to systems and operational shortcomings.

The Evans Consulting Group, Inc.

About Us

The Evans Consulting Group, Inc. (ECG) serves a broad range of clients, nationwide—including public, private and for-profit institutions—in all areas of financial aid operations. In addition to our comprehensive compliance and assessment services, we provide interim management and staffing, systems setup and support, and other customized consulting solutions.

The hallmark of our process is that we tailor our approach to meet the needs of each client. There are no “cookie cutter” solutions. We build personal relationships with our clients to understand their goals, and we leverage their strengths to improve the services they provide to students.

Our cost-conscious solutions are designed to ensure compliance and mitigate risk, while also maximize and streamline existing resources. Beyond merely making recommendations, ECG participates in the implementation of these models by providing on-site training and knowledge transfer for staff.

The Center for Financial Aid Management, a division of ECG, provides strategic outsourcing and other best practice solutions for managing financial aid operations.

Mailing Address:
7852 Eagle Ranch Road
Fort Collins, CO 80528

Telephone: (888) 454-3101; (202) 465-4766

Fax: (443) 638-0238

www.evansconsulting.org | www.centerfinaid.org



ATTACHMENT A - COMPARISON OF MIT & PEER INSTITUTIONS



Institution	Type/Control	Undergrad Enrollment	Graduate Enrollment	Aid Disbursed	Undergrad FA %	Grad FA %	# of Professional Staff	# of Non-Exempt (Support) Staff	# of Student Workers	PFAIDS Specialist on FA Staff	PFAIDS Supported by IT	Process ISIRs	Install Updates	Write Rules	Write/run Reports	Provide Help Desk Support
1 - MIT	Private Non-profit	4000	6000	\$ 148,000,000.00	73	15	8	1	1.5	No	Yes	No	Yes	No	No	No
2	Private Non-profit	975	1200	\$ 30,000,000.00	94	85	2	3	2	No	Yes	No	Yes	No	No	No
3	Public	12300	151	\$ 80,000,000.00	64	51	12	7	5	No	Yes	No	Yes	No	No	No
4	Private Non-profit	5200		\$ 40,000,000.00	90		2	11	0	No	Yes	No	Yes	No	No	No
5	Private Non-profit		500	\$ 7,000,000.00		60	2		1	Yes	Yes	No	Yes	No	No	No
6	For-profit	1300	0		90		7			No		No		No	No	No
7	Private Non-profit		300	\$ 1,200,000.00		75	1		1	No	Yes	No	Yes	No	No	No
8	Private Non-profit		182	\$ 1,600,000.00		84	1			No	Yes	No	Yes	No	No	Yes
9	Private Non-profit	1200	400	\$ 32,000,000.00	60	60	4	1	3	No	Yes	No	Yes	No	No	No
10	Public	9000	2800	\$ 69,000,000.00	76	82	9	7	10	Yes		No		No	No	No
11	Private Non-profit	2050	100	\$ 50,000,000.00	98	93	3	1	6	Yes	No	No		No	No	No
12	Private Non-profit	2500	2	\$ 75,000,000.00	70	50	6	4.5	3	Yes	Yes	No	Yes	No	No	No
13	Private Non-profit		750	\$ 2,000,000.00		30		2		No	Yes	No	Yes	No	No	Yes
14	Private Non-profit	1052		\$ 20,000,000.00	40		2	1	0.5	No	Yes	No	Yes	No	No	No
15	Private Non-profit	16000	8000	\$ 470,000,000.00	80	50	28	8	12	Yes	Yes	No	Yes	No	No	No
16	Private Non-profit	6000	23000	\$ 900,000,000.00						Yes	Yes	No	Yes	No	No	Yes
17	Private Non-profit	3700	1400	\$ 118,000,000.00	85	80	6	6	6	Yes	Yes	No		No	No	Yes
18	Private Non-profit	6400		\$ 169,000,000.00						Yes	Yes	No	Yes	No	No	No

Attachment B-1

PowerFAIDS Support Specialist SFS

General Description

The PowerFAIDS Support Specialist is a SFS professional staff member that has day-to-day operational responsibility for PowerFAIDS and serves as a liaison between SFS and IS&T. The incumbent provides support to SFS to include running various reports and programs related to the daily operations of the financial aid office. The PF Support Specialist coordinates installs, upgrades, tests and otherwise maintains the PowerFAIDS operating system.

Primary Duties and Responsibilities

- Test PowerFAIDS releases and upgrades and document any resulting changes to business processes and procedures.
- Monitor and maintain the integrity and confidentiality of data.
- Act as a liaison between SFS and IS&T on functional and technical issues.
- Establish and maintain financial aid rules, validation tables and other operating parameters in PowerFAIDS.
- Assist departmental staff with writing and interpreting reports as well as with the preparation of scheduled and ad-hoc reports as required.
- Develop reports, workflow, and e-print definitions as necessary; review reports developed by other users and offer technical guidance and support.
- Coordinate and assist in training programs for SFS to include the integration of PowerFAIDS information with Banner and vice versa.
- Perform other job-related duties as assigned.

Essential Functions

- Ability to efficiently operate a personal computer and associated software (Outlook, Word, Excel, etc.)
- Ability to remain current with financial aid practices, state regulations and technology.
- Knowledge of relational databases.
- Ability to accurately write, modify, test, and document report requests.
- Ability to manage projects skillfully.
- Ability to read and utilize technical manuals.
- Ability to communicate effectively and appropriately.
- Ability to maintain confidentiality of records and information.
- Ability to interact in an effective and appropriate manner with members of the college community.
- Ability to detect and correct grammatical and spelling errors in written correspondence.
- Ability to maintain files accurately, in paper and in software programs.
- Ability to handle multiple tasks simultaneously.
- Ability to conduct training in a clear and concise manner that enables the trainee to perform job-related tasks.
- Ability to understand and use web-based application software.
- Ability to collaborate effectively with technical and non-technical staff to derive solutions to technology issues.
- Ability to initiate objectives with minimal supervision.
- Ability to establish priorities and meet objectives.
- Ability to exercise good judgment in evaluating situations and making decisions.

Required Minimum Qualifications

- Bachelor's degree in computer information systems, computer technology or related field or Associate's degree with five years of job-related experience and coursework in computer technology.
- Knowledge of web-based relational application software systems.
- Advanced knowledge of the use of spreadsheets, database software, queries (SQL) and report-writing tools such as access.

Attachment B-1

- Proficiency with a student information system.

Additional Preferred Qualifications

- Bachelor's degree in computer information systems, computer technology or related field.
- Familiarity with the PowerFAIDS subsystem.
- Work experience in a higher education environment, preferably financial aid.

Attachment B-2

POWERFAID System Specialist Columbia University

Advertised Summary Job Description: The Power AIDS System Specialist provides system and operational support for a highly operationally diverse and varied user community with a focus on Financial Aid system processing across various schools of Columbia University. Reporting to the Director of Financial Aid Operations, the Specialist will be relied upon to provide advanced technical and systems support to various users of SIS and the financial aid sub-system including: serve as independent liaison between users and the SIS technical team, provide user set-up and desk-top support, envision, develop, document and maintain practices and processes for operations and system processing. The incumbent will also support financial aid operations and processing through system uploads and feeds as well as provide back-up support to other student services business processing including uploads, feeds, and system support for application and admissions. The incumbent also supports functions for various student system modules including: provides end-user training and system support; performs planning and support for the development, implementation, and testing of system enhancements and new systems using a variety of technologies including mainframe, client-server, software as a service, and web-technologies. The incumbent acts as business process and systems analyst and technical consultant for student services process and operations; participates in the technical development of new processes and systems to benefit student services; performs other duties as assigned. MUST BE WILLING TO WORK FLEXIBLE HOURS.

General Minimum Qualifications: Bachelor's degree is required. A minimum of 2 to 4 years' related experience with demonstrated success as a technology-oriented professional in a complex organization is required.

Additional Specific Minimum Qualifications: A demonstrated ability to work with a wide range of University and business personnel performing student administration activities is required. An understanding of how technology supports and enhances administrative operations and service provision in a University environment is required. Knowledge of various activities within system operation including File Transfer Protocols, system/database access, and batch scheduling is required. Experience with enhancement, development, and integration of complex student information systems is required. Excellent written and oral communication skills is required. A demonstrated ability to work independently, manage conflicting priorities and work under deadlines is required.

Preferred Qualifications: Experience with SIS Informs and PowerFAIDS Financial Aid system is strongly preferred. Project Management experience is a plus. Flexibility with hours is preferred.

As a member of the National Collegiate Athletic Association (NCAA) and the Council of Ivy Group Presidents (Ivy League), it is imperative that members of the Columbia University community, in all matters related to the intercollegiate athletics program, exhibit the highest professional standards and ethical behavior with regard to adherence to NCAA, Conference, University, and Department of Intercollegiate Athletics and Physical Education rules and regulations.

Columbia University is an Equal Opportunity/Affirmative Action employer

Attachment C

SFS Business Analyst IS&T

General Description

The IS&T Business Analyst for SFS reports to xxxxxxxxxxxx and provides systems analysis and design, database management and administration, analysis, security, development of departmental data marts and data mining in support of the reporting and computing needs of the institution. The IS&T Business Analyst also serves as the backup resource for the financial aid PowerFAIDs Support Specialist.

Primary Duties and Responsibilities

- Provide systems analysis services to define database architecture in support of the reporting requirements of the institution.
- Elicit requirements using interviews, document analysis, requirements workshops, surveys, business process descriptions, business analysis, task and workflow analysis.
- Evaluate information gathered from multiple sources, reconcile conflicts, decompose high-level information into details, abstract up from low-level information to a general understanding, and distinguish user requests from the underlying true needs.
- Communicate and collaborate with external and internal customers to analyze information needs and functional requirements.
- Manage and prioritize data warehouse, SQL server and application development projects.
Demonstrate strong analytical and product management skills, including a thorough understanding of how to interpret customer business needs and translate them into application and operational requirements.
- Excellent verbal and written communication skills and the ability to interact professionally with a diverse group, executives, managers, and subject matter experts.
- Collaborate with developers and subject matter experts to establish the technical vision and analyze tradeoffs between usability and performance needs.
- Be the liaison between the business units, technology teams and support teams.
- Serve as a backup resource for the PowerFAIDs Specialist.

Essential Functions

- Ability to design, develop and maintain a data warehouse.
- Ability to manage projects skillfully.
- Ability to communicate effectively and appropriately.
- Ability to utilize the Microsoft Net development environment.
- Ability to maintain confidentiality of records and information.
- Ability to interact in an effective and appropriate manner with members of the college community.
- Ability to understand and use web-based application software.
- Ability to collaborate effectively with technical and non-technical staff to derive solutions to technology issues.
- Ability to initiate objectives with minimal supervision.
- Ability to establish priorities and meet objectives.
- Ability to exercise good judgment in evaluating situations and making decisions.
- Ability to handle multiple tasks simultaneously.

Required Minimum Qualifications

- Bachelor's degree in computer science, management information systems or related field required.

Attachment C

- A minimum of five years of applicable experience in systems analysis and design, software engineering and in-depth knowledge and experience in management, administration and design of Microsoft SQL Server environments.
- Knowledge of data warehouse hardware and software requirements.
- Advanced knowledge of the use of spreadsheets, database software, queries (SQL) and report-writing tools such as access.
- Proficiency with a student information system.

Additional Preferred Qualifications

- Master's degree in computer information systems, computer technology or related field.
- Familiarity with information technology industry trends.
- Work experience in a higher education environment.



ATTACHMENT D
WORKFLOW VENDERS WITH KNOWN INSTALLATIONS IN HIGHER EDUCATION

Vendor	Web Address	Phone Number	Product Name	Comments
Perceptive Software	www.perceptivesoftware.com	913.422.7525	ImageNow	400+ higher education clients
Hyland Software	www.hyland.com	888.hyland.8	OnBase	Identified higher education solution
Ascend Software	www.ascendsoftware.com	888.353.7058	SmartTouch Solutions	ACS uses this product to service the University of Phoenix and a score of other financial aid operations.
Swift Software	www.jobtraq.com	866.640.CODE (2633)	JobTraQ Enterprise Task Management	Massachusetts State Auditors, University of Florida are clients.
BP Logix	www.bplogix.com	877. 627.5871	Process Director	Limited HE clients, but includes the CA Community Colleges, Purdue, and UW-Lacrosse; specific applications not identified
Integrify	www.integrify.com	888.536.9629	Integrify	200 clients, but Baylor is the only listed HE user.
Colosa Inc.	www.processmaker.com	617.340.3377	ProcessMaker	Four universities outside the U.S.

This list is not all-inclusive, but is limited to vendors that have worked in higher education.
ImageNow is the perceived leader in higher education and the one that ECG encounters most frequently.